



# ***U.S. Department of Agriculture and Department of the Navy Hawaii Renewable and Bioenergy Industry Forum***

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**(Deputy Assistant Secretary of the Navy Energy Office)**

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# SECNAV Energy Goals

## **1. Acquisition Excellence**

- ***Incorporate “green” evaluation factors when awarding contracts for systems and facilities***
  - Lifecycle energy costs
  - Fully-burdened cost of fuel
  - Incentives for contractor’s “energy footprint”

## **2. Sail the “Great Green Fleet”**

- ***DON will demonstrate a Green Strike Group in local operations by 2012 and sail it by 2016***
  - Nuclear vessels
  - Surface combatants using biofuels with hybrid electric power systems
  - Aircraft flying on biofuels

## **3. Reduce Petroleum Use in Non-Tactical Vehicles**

- ***By 2015, DON will reduce petroleum use in the commercial fleet by 50 percent***
  - Flex fuel vehicles
  - Hybrid electric vehicles
  - Neighborhood electric vehicles

## **4. Increase Alternative Energy Ashore**

- ***By 2020, DON will produce at least 50 percent of shore-based energy requirements from alternative sources (solar, wind, ocean, biomass, and geothermal)***
- ***By 2020, 50 percent of all shore installations will be Net Zero energy consumers***

## **5. Increase Alternative Energy Use Department-wide**

- ***By 2020, 50 percent of total DON energy consumption will come from alternative sources***
- ***Includes energy consumption for ships, aircraft, tanks, vehicles, and shore installations***



# Goal 1: Acquisition Reform

***DoD is the nation's largest single energy consumer, accounting for 2.0% of U.S. energy consumption***

- Determine how to effectively identify and capture the risk from U.S. operational energy demand in the legacy and future force***
- Determine best approaches to inform force planning, requirements development, and acquisition trade-space decision-making***







## Goal 2: Reduce Petroleum Use





# Goal 3: Sail the Great Green Fleet







# ***Sail the Great Green Fleet***







# Sail the Great Green Fleet







# Fly the Green Hornet







## Goal 4: Increase Alternative Energy Use Ashore





## Goal 5: Increase Alternative Energy Use Navy-wide







# Increase Alternative Energy Use Navy-wide



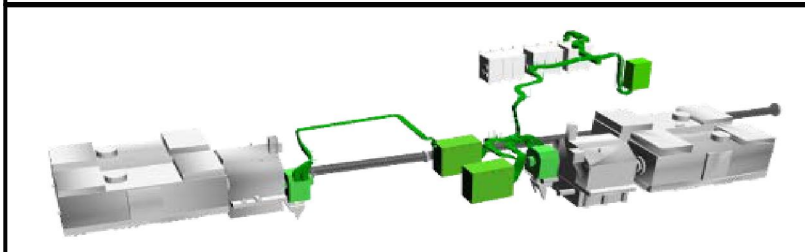
**USS Truxtun (DDG-103)**

Pursue - Attack - Vanquish



## Alternative Propulsion Systems

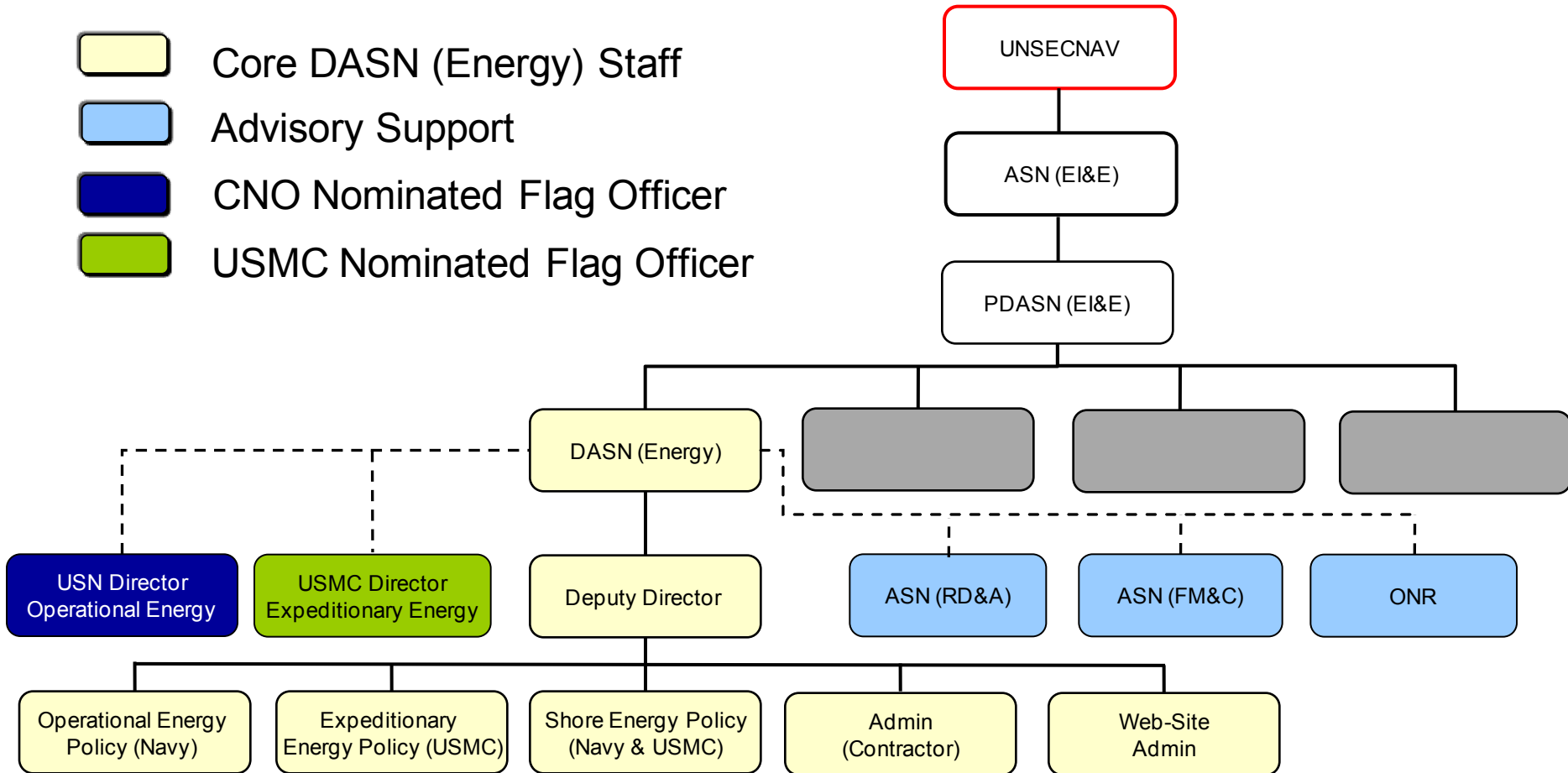
- **Hybrid Electric Drive** under development for DDG
  - Savings projected at 8,500 barrels per ship per year
  - Enables more efficient operation at low speeds





# DON Energy Organization

- Core DASN (Energy) Staff
- Advisory Support
- CNO Nominated Flag Officer
- USMC Nominated Flag Officer







# ***Creating a Demand for Biofuels***

Airline industry and the Department of Defense collectively consume 1.5 million barrels of jet fuel per day

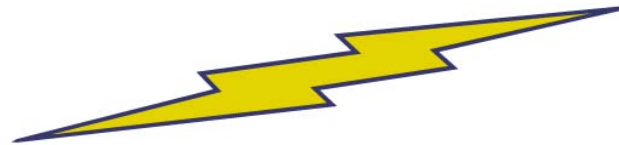
Defense Energy Support Center and the Air Transport Association of America have both recently signed an Alternative Fuels Pact on March 19, 2010

- Shared goals of spurring the development and deployment of commercially viable and environmentally friendly alternative aviation fuels
- Collaboration reinforces commitment to commercialization of jet fuel
  - Explore cooperative market engagement for fuel
  - Improve financial prospects for alternative fuel infrastructure
  - Accelerate fuel certification efforts and refine methodology for evaluating environmental impacts
- Key fuels for alternative energy effort
  - Fischer-Tropsch fuels
  - New class of hydrotreated renewable jet fuels





# ***Questions?***



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